What is claimed is:

1. A method of forming a substrate, the method comprising:

applying a resist to a back side of a substrate having patterned conductive layers on a front side and the back side of the substrate;

removing part of the patterned conductive layer from the front side of the substrate to form pads and interconnects on the front side of the substrate;

applying another resist to the front side of the substrate;

forming a pattern in each resist that exposes the pads on the front and back sides of the substrate; and

applying electrolytic nickel to the pads on the substrate.

2. The method of claim 1 further comprising applying gold to the electrolytic nickel on the pads by plating.

3. The method of claim 1 further comprising:

removing the resist from the back side of the substrate; and

removing a part of the conductive layer from the back side of the substrate to form pads and interconnects on the back side of the substrate.

4. The method of claim 3 further comprising:

applying a further resist to the back side of the substrate; and

forming a pattern in the resist that exposes the pads on the back side of the substrate.

5. The method of claim 4 further comprising applying gold to the electrolytic nickel on the pads that are within the pattern of at least one of the resists on the front and back sides of the substrate.

6. The method of claim 4 further comprising forming solder on the pads that are within the pattern of at least one of the resists on the front and back sides of the substrate.

7. The method of claim 1 wherein applying electrolytic nickel to the pads on the substrate includes applying electrolytic nickel to the pads on one of the front and back sides of the substrate.

8. A method of forming a substrate, the method comprising:

applying a conductive layer to one side of a substrate that includes pads and interconnects on both sides of the substrate;

applying a resist to both sides of the substrate;

forming a pattern in each resist that exposes the pads on both sides of the substrate; and

applying electrolytic nickel to the pads on the substrate.

9. The method of claim 8 further comprising applying gold to the electrolytic nickel on the pads by plating.

10. The method of claim 8 wherein applying electrolytic nickel to the pads on the substrate includes applying electrolytic nickel to the pads on one of the front and back sides of the substrate.

11. The method of claim 8 further comprising:

removing the resist from the side of the substrate that includes the conductive layer; and

removing a part of the conductive layer from the substrate to redefine the pads and interconnects on the side of the substrate that were joined by the conductive layer.

12. The method of claim 11 further comprising:

applying a resist to the side of the substrate that had included the conductive layer; and

forming a pattern in the resist to expose the pads on the side of the substrate that had included the conductive layer.

13. The method of claim 12 further comprising applying gold to the electrolytic nickel on the pads that are within the pattern of at least one of the resists on the substrate.

14. The method of claim 13 further comprising forming solder on the pads that are within the pattern of at least one of the resists on the substrate.

15. A method of forming a substrate, the method comprising:

applying a conductive layer to a front side and a back side of a substrate;

applying a first resist to the front side of the substrate and a second resist to the back side of the substrate;

forming patterns in the first resist and the second resist;

applying conductive material within the pattern of the first and second resists to the conductive layer;

removing the first and second resists from the front and back sides of the substrate;

applying a third resist to the back side of the substrate;

removing part of the conductive layer from the front side of the substrate to form pads and interconnects on the front side of the substrate;

applying a fourth resist to the front side of the substrate;

forming patterns in the third and fourth resists to expose the pads on the front and back sides of the substrate;

applying electrolytic nickel to the pads on the substrate;

removing the third resist from the back side of the substrate;

removing a part of the conductive layer from the back side of the substrate to form pads and interconnects on the back side of the substrate;

applying a fifth resist to the back side of the substrate; and

forming a pattern in the fifth resist that exposes the pads on the back side of the substrate.

16. The method of claim 15 further comprising applying gold to the electrolytic nickel on the pads by plating before the conductive layer is removed from the back side of the substrate.

17. The method of claim 15 further comprising applying gold to the electrolytic nickel on the pads that are within the pattern of at least one of the third and fifth resists.

18. The method of claim 15 wherein applying a conductive layer to a front side and a back side of a substrate includes applying a copper layer to a front side and a back side of a substrate.

19. The method of claim 15 further comprising forming solder on the pads that are within the pattern of at least one of the third and fifth resists.

20. The method of claim 15 wherein applying electrolytic nickel to the pads on the substrate includes applying current to the substrate while the substrate is immersed in an electrolyte that includes nickel ions.

21. A method of forming an integrated circuit assembly, the method comprising:

applying a resist to a back side of a substrate that includes patterned conductive layers on a front side and a back side of the substrate;

removing part of the patterned conductive layer from the front side of the substrate to form pads and interconnects on the front side of the substrate;

applying another resist to the front side of the substrate;

forming a pattern in each resist that exposes the pads on the front and back sides of the substrate;

applying electrolytic nickel to the pads on the substrate;

forming solder on the pads that are within the pattern of at least one of the resists on the front and back sides of the substrate; and

coupling an electronic component to the solder in the pads on one the front and back sides of the substrate.

22. The method of claim 21 wherein attaching an electronic component to the pads on one the front and back sides of the substrate includes attaching a die to the pads on the front side of the substrate.

23. The method of claim 22 wherein attaching an electronic component to the pads on one the front and back sides of the substrate includes attaching a board to the pads on the back side of the substrate.

24. The method of claim 21 further comprising applying gold to the electrolytic nickel on the pads by plating before forming solder on the pads.

25. The method of claim 21 wherein the electronic component is a processor.

26. The method of claim 21 wherein the electronic component is a wireless transceiver.

27. The method of claim 21 wherein forming solder on the pads comprises:

removing the resist from the back side of the substrate;

removing a part of the conductive layer from the back side of the substrate to form pads and interconnects on the back side of the substrate;

applying another resist to the back side of the substrate; and

forming a pattern in the another resist that exposes the pads on the back side of the substrate.

28. A computer system comprising:

a bus;

a memory coupled to the bus;

an integrated circuit assembly that is electrically connected to the bus, the integrated circuit assembly including a substrate formed by a process that includes:

applying a resist to a back side of the substrate when the substrate has patterned conductive layers on a front side and the back side of the substrate;

removing part of the patterned conductive layer from the front side of the substrate to form pads and interconnects on the front side of the substrate;

applying another resist to the front side of the substrate;

forming a pattern in each resist that exposes the pads on the front and back sides of the substrate; and

applying electrolytic nickel to the pads on the substrate.

29. The computer system of claim 28, wherein the process that forms the substrate further includes applying gold to the electrolytic nickel on the pads.

30. The computer system of claim 28, wherein the process that forms the substrate further includes forming solder on the pads.